DAVID B STEIN

407 Memorial Drive, Cambridge MA 02139 • (323) 393-3553 • stein@mit.edu

EDUCATION

Massachusetts Institute of Technology (Cambridge, MA)   **2006-present**
Candiate for BS in EECS **Feb 2011**, M.Eng in EECS **Sept 2011**
Selected Coursework *Advanced Data Structures · Computation Structures · Communication for Buisness Management · Computer System Engineering · Computer Vision · Mobile Device Application Development · Optimisation Methods in Management Science · Probabilistic Systems Analysis · Robotic Science and Systems · Waves and Vibrations*

Deerfield Academy (Deerfield, MA)   **2002-2006**
SAT: Math-800, writing-710, verbal-700   AP Scholar with Honor

EXPERIENCE

Microsoft - Technical Computing Cloud Team   **Summer 2010**
Software Development Engineer
- Created new tools facilitating development of distubuted cloud applications by non-programmers
- Investigated novel cloud elasticity management algorithms using machine learning and feedback control
- Designed and demonstrated feasability of real-time analysis and visualization of large datasets

Distributed Robotic Lab (part of MIT's CSAIL)   **Summer 2009-present**
Research Assistant
- Implemented a heterogeneous mesh-networked team of robots to autonomously assemble structures
- Architected and fabricated robotic platform, wrote software and firmware control systems for robots
- Mentor and manage an undergraduate research assistant
- Co-authored paper on results (to appear at IROS 2010)

Systems Engineering Research Initiative at MIT   **Summer 2008-Spring 2009**
Research Assistant
- Aided planning and implementation of an automated approach to designing complex systems
- Developed software to analyze thousands of satellite designs using phsyics-based monte-carlo simulation
- Co-authored one conference and one journal paper (AIAA Space 2009, Journal of Spacecraft and Rockets)

Omya - IT Dept   **Summer 2006 and 2007**
Intern
- Provided on and off site technical assistance to OMYA's North American headquarters' five-building campus
- Created internal documentation outlining internal network structure and instructions for its maintenance

TEACHING

MIT Dept. of Electrical Engineering and Computer Science   **Spring 2010**
Teaching Assistant - 6.005: Elements of Software Design
- Taught weekly and recitations for approximately a dozen regularly attending students
- Wrote and graded assignments, spearheaded design of new final project

MIT Dept. of Electrical Engineering and Computer Science   **Fall 2009**
Lab Assistant - 6.005: Elements of Software Design
- Assisted struggling students in office hours and helped work with students during lab sessions

MIT Dept. of Electrical Engineering and Computer Science   **Spring 2008**
Lab Assistant - 6.01: Intro to EECS I
- Tutored students during bi-weekly programming and circuity labs

LEADERSHIP

MIT Inter-fraternity Council - *Executive Board*   **Fall 2008 - Fall 2009**
- One of six elected members of the E.B. representing over half of the male undergraduates
- Coordinated the 26 fraternity recruitment effort consisting of hundreds of competing events
- Directed redesign of a system for monitering the location and behavior of rush participants

Kappa Sigma Fraternity   **Initiated Fall 2007**
- President (Summer 2009) - Oversaw repairs to heating system, resolved interpersonal issues.
- Treasurer, Housing Chair (Summer 2008) - Leased our 5 story building's rooms individually, collected rent.

MIT Varsity Crew   **2006-2009**
- Varsity member of MIT's only Division I sport

PUBLICATIONS *(alphabetical first author listing)*

Richards, M., Ross, A., **Stein, D.**, and Hastings, D., "Multi-Attribute Tradespace Exploration for Survivability: Application to Satellite Radar," AIAA Space 2009, Pasadena, CA, September 2009. (AIAA-2009-6728)

A. Bolger, M. Faulkner, **D. Stein**, L. White, S. Yun, D. Rus, "Experiments in Decentralized Robot Construction with Tool Delivery and Assembly Robots," IEEE/RSJ International Conf on Intelligent Robots and Systems, 2010

SKILLS

.NET, Azure, C, C++, $C^{\#}$, HTML, GNU/Linux, Java, LaTeX, LINQ, MapReduce/Dryad, MATLAB, MPI, Multi-threading, Office, Perl, Python, RegEx, UNIX, Sockets, SQL, x86, Win32, Windows Comm